

Sub-D1 cont.
C2 cont.

adjacent to a second end of said first fluidized bed, said second end being remote from said first end so that said solids and said first fluid flow in counter current, a second liquid fluidized bed, said second liquid fluidized bed being an entraining liquid fluidized bed wherein a means for introducing solids and a means for introducing a second fluid into said second bed are both adjacent to one end of said second fluidized bed so that said solids and said second fluid introduced into said second bed flow concurrently through said second bed from said one end toward another end of said second fluidized bed remote from said one end, first means connecting said first fluidized bed to said second fluidized bed adjacent to said second end of said first fluidized bed and said one end of said second fluidized bed, said first connecting means includes means to feed said solids into said second fluidized bed, second means connecting said first and said second fluidized beds adjacent said first end of said first bed and said other end of said second fluidized bed, said first means connecting includes means forming a dynamic seal between said first and second fluidized beds and said second means connecting includes said means to feed solids into said first fluidized bed.

Claims 22 and 23 have been amended to read as follows

Sub-D1
C3

22. (Amended) A liquid-solid circulating fluidized bed system as defined in claim 21 wherein said first end of said first fluidized bed is the top end, said second end of said first fluidized bed is the bottom end, said one end of the second fluidized bed is the bottom end and said other end of said second fluidized bed is the top end.

23 (Amended) A liquid-solid circulating fluidized bed system as defined in claim 22 wherein said first fluid essentially flows upwards and said solids essentially flow downwards to form a counter current flow in said first fluidized bed, and wherein said second fluid and solids both essentially flow upwards concurrently in the second fluidized bed.

Please amend claim 28 as follows

Sub-D1
C4

28. (Amended) A liquid-solid circulating fluidized bed system as defined in claim 27 wherein said first means connecting said first and said second liquid fluidized beds further includes a separator means for separating solids from fluid and exhausting such separated fluid to provide separated solids.

29. (Amended) A liquid-solid circulating fluidized bed system as defined in claim 1 wherein the dynamic seal is a packed moving bed.

Please delete claims 30, 31, 32 and 33 without prejudice

Please amend claims 34 to 37 inclusive as follows

34. (Amended) A liquid-solid circulating fluidized bed system as defined in claim 1 wherein second means connecting said first and said second liquid fluidized beds includes a washer for washing said solids before they are fed into said first end of said first fluidized bed, a separator means for separating solids from fluid and exhausting such separated fluid to provide separated solids, and a hydraulic seal between said first and second fluidized beds.

35. (Amended) A liquid-solid circulating fluidized bed system as defined in claim 23 wherein second means connecting said first and said second liquid fluidized beds includes a washer for washing said solids before they are fed into said first end of said first fluidized bed, a separator means for separating solids from fluid and exhausting such separated fluid to provide separated solids, and a hydraulic seal between said first and second fluidized beds.

36 (Amended) A liquid-solid circulating fluidized bed system as defined in claim 34 wherein said first means connecting said first and said liquid second fluidized beds includes a second washer for washing solids adjacent to said second end of said first fluidized before they are introduced into said second fluidized bed, a separator means for separating solids from fluid and exhausting such separated fluid to provide separated solids.

37. (Amended) A liquid-solid circulating fluidized bed system as defined in claim 35 wherein said first means connecting said first and said second liquid fluidized beds includes a second washer for washing solids adjacent to said second end of said first fluidized before they are introduced into said second fluidized bed, a separator means for separating solids from fluid and exhausting such separated fluid to provide separated solids.

Claims 38 to 45 inclusive have been deleted.

Remarks

Claim 1, claims 21 to 29 inclusive, and claims 34 to 37 inclusive are being prosecuted.

By this amendment Applicant has made a sincere effort to comply with all the requirements of the Office Action.

The paragraphs added on page 5 line 23 in the amendment filed July 18, 2002 in the clean copy was the paragraph beginning on page 4 line 26 but was intended to be the corresponding originally filed paragraph on page 5 line 23 with two minor typing errors corrected. The intended changes have now been incorporated in the corrected amendment to this paragraph.

The paragraphs added on page 7 line 24 and page 8 line 30 in the amendment filed July 18, 2002